



**State of Rhode Island and Providence Plantations
Water Resources Board**
100 North Main Street, 5th Floor
Providence, RI 02903
(401) 222-2217 ♦ FAX: (401) 222-4707

MINUTES OF BOARD MEETING # 447
February 14, 2006

Members Present:

Daniel W. Varin, Chairman
William Penn, V. Chairman
Frank Perry
June Swallow
Alicia Good*
William Parsons
Jon Schock
Robert Griffith
William Stamp, III
W. M. Sullivan
Dr. Walter Combs

Members Absent:

Timothy Brown

*Member designee

Staff Present:

Juan Mariscal
Kathleen Crawley
Brian Riggs
Beverly O'Keefe
William Rverso
Elaine Maguire
Tracy Shields

Guests:

Pasquale DeLise, BCWA
Dan O'Rourke, City of Warwick, Water
Peter Calderazzo, Dewberry
Alan Silbovitz, Dewberry
Peter Gengler, RI-NEMBA
Philip Keyes, NEMBA
Michael Field, Attorney General
Susan Andrade, BCWA
James Campbell, USGS
Meg Kerr, Rivers Council
Eugenia Marks, Audubon
Leo Corrigan, RI-NEMBA
Harold Ward, The Water Security Coalition
Cynthia Giles, Conservation Law Foundation
Russ Chateaufneuf, RIDEM—OUR
Jane Austin, Save the Bay
Karen Sullivan, URI-CLF

1. CALL TO ORDER

With a quorum present, Chairman Varin called the meeting to order at 12:05 PM. The Chairman thanked Director Sullivan for making the room available to the Board for its meeting. He then introduced Mr. Field who was sitting in for the Board's regular legal counsel.

2. APPROVAL OF MINUTES:

Mr. Parsons moved approval of the minutes of the January meeting with a second by Mr. Schock. Chairman Varin then asked if the information had been received from the Warwick Public Works Department on the compost and whether it was sufficient to meet DEM requirements. Mr. Mariscal responded that the report had been received and now a meeting would have to be established with DEM to determine if the date is acceptable. This motion carried unanimously.

3. CHIEF BUSINESS OFFICER'S REPORT

Mr. Penn moved approval of the Chief Business Officer's Report. Director Sullivan seconded and the Board unanimously approved the Chief Business Officer's Report dated January, 2006.

4. CHAIRMAN'S REMARKS

Chairman Varin noted that he only had one item. He noted that at the January meeting the members had been informed that there would be a meeting with the Special Legislative Commission to Study all aspects of the Kent County Water Authority on January 25, 2006. However, that meeting was postponed until February 2, 2006. It was a full 2-hour meeting and for most of it, 5 of the 8 commission members were present. The staff had put together an excellent, very comprehensive presentation on the legislation we operate under, an overview of the water resources of the state, and the work that has been done and will be done on the Big River water development.

5. GENERAL MANAGER'S REPORT

Mr. Mariscal noted the length of the agenda and stated he would be brief. He noted the discussion at today's Finance Committee meeting of the Phase III Watershed Protection Program and funding for such. He explained that a simplified form of reporting had been established to outline the status of each water supplier. He then explained the current format of this report. It showed that 94 percent of the total projects for Phase III had been committed. We are in good shape; however, there are a few communities which need to get moving on projects.

Director Sullivan asked if there was any idea of timeframe for the Kingston project, and Mr. Mariscal noted that Kingston had been working with staff for acquisition of a backup well site, and they would like to use this money towards the purchase of land. Mr. Mariscal noted his concern that closings on land acquisition can take longer than expected. Alternatively, we may have money available for them to purchase under the Groundwater Protection and Acquisition Program (GPAP).

Chairman Varin asked Mr. Penn if 94 percent would keep us out of trouble. Mr. Penn stated that it should. The deadline is June 30, 2006, and that is a deadline the Board has established, not necessarily a legal deadline. If we can get between 95 percent and 98 percent by then, we should be in good shape.

Mr. Mariscal reiterated the existence of the GPAP; a similar report of status on this program was being prepared. Mr. Mariscal noted that right now 6 sites in the South County area were being reviewed. He acknowledged the concern with closing on the properties as soon as possible. However, he wanted to give 3 cautionary notes:

- 1) Water quality issues with some of the sites. This was discussed at the last Board meeting and at some of the committee meetings. We want to ensure that we are acquiring property that will provide good water quality in the future.
- 2) The issue with a couple of sites is that we have actually moved the well a few hundred yards one way or another to get a better confirmation that in doing so we haven't put ourselves in some unknown desert of South County and there is no water available.
- 3) Another issue which could delay closing is that the staff has been working with USGS on the Pawcatuck Optimization Project. While progress is being made toward completing that work, we do not have all the answers yet.

Mr. Penn acknowledged Mr. Mariscal's concerns, but noted that at the same time the general obligation bonds had been issued and are just sitting with Treasury. So the sooner we can get that money out, the better we will look.

Mr. Mariscal responded that there were some that could probably go forward, however, there were others which would take longer. There was one addition which came up recently. We received a call from Shannock Village and they are concerned with the long-term viability of their water supply, and are looking to acquire another site for ground water supply. We are investigating what we can do there. One of the concerns is that the site where their well and water tank are on land not owned by the Shannock Water Supply District. Apparently there are landlord/tenant issues. Other communities in the vicinity may have other well site projects in the near future. So, while we may have issues on some of the sites, other sites may have more pressing need. All of these sites are for the long-term; however, Shannock's may be for the "shorter" long-term.

Another item Mr. Mariscal noted was something the Board had approved approximately 2 years ago as part of the Water Allocation Program regards the stream gaging network. As previously reported, the Narragansett Bay Coordination Team of which Dr. Sullivan and I are members, has been discussing this and has included it in the work program as a high priority. This Board had approved a recommendation to go forward with a number of priority

stream gages in RI back in April of 2004. Our hope was that through the Coordination Team that funding might become available. The emphasis is still on the word “might.” At the same time, some of the discussions which are coming out of the Kent County Legislative Commission show a strong interest in support for these stream gages. At a recent meeting of the RI Environmental Monitoring Collaborative, a subset of the Coordination Team, they asked that DEM and this Board get together to review the 10+ priority stream flow gages to see if they were still the appropriate priority and whether water quality was a factor in making these decisions. We have met and made some minor modifications which strengthen these priority recommendations, and also addresses some deficiencies which have occurred since April 2004. The deficiencies are as you know the Pawtuxet gage lost funding last July and we were able to rescue that in the fall so that it could continue until June of this year. After July of this year, it will be unfunded again. We have included that at the top of the list to be funded. Also, there was a Blackstone River gage in Pawtucket that also is unfunded. So from a water quality viewpoint it is very important. So these 2 gages have been added to the list. The other interest on the part of a number of people including ourselves is the Big River gages, and how that might be affected. There was one gage in the top 10 that was related to Big River and there were 2 in the next 20 grouping that were related to Big River. From my perspective I saw any gages related to Big River as part of some project that would be done regardless of how many gages that might be. We would be putting in a number of gages to define what the flow is presently and what it would be in the future with ground water wells functioning. Finally, there is a Woonasquatucket gage that was further down the priority list, and because of activities—the CSO abatement project by the Narragansett Bay Commission, and DEM’s needs to develop TMDLs (total maximum daily loading program) they need flow data from the Valley Street area. So this gage is getting bumped up the list.

Therefore, all of the priorities that this Board adopted 2 years ago are still intact; there are just some others which have been added to the top priorities. The next step is to meet with the committee that reviewed all of this before next Wednesday because that is when we are going back to the Coordination Team to reestablish what the priorities are so that the Coordination Team can put that forward as part of their budgetary needs. Director Sullivan noted that these gages were essential to understanding not only water supply but Bay health as well.

It was noted that the members of the Kent County Legislative Commission were all supportive of the stream gages, and it was hoped that these members were in communication with the members of the House and Senate Finance Committees. Mr. Perry noted that the Commission’s investigation had broadened and taken on a statewide focus. He added that the questions were now being put to the Board as to what it was doing and Mr. Perry noted his belief that it might behoove the Board members to at least review the videotapes of these sessions (Mr. Mariscal has all but the very first session which was not taped). There have been questions raised regarding just what the role of the Board is. Chairman Varin stated his agreement with Mr. Perry that the Commission’s scope had become statewide. He also noted that he had stated to the Commission that the Board had been without a staff engineer since October, and still does not have one and that is certainly something which would affect our ability to pursue some of their ideas. This concluded the General Manager’s report.

6. RI RIVERS COUNCIL PRESENTATION, Meg Kerr

Chairman Varin commented that at the last meeting there had been a discussion of some aspects of our relationship with the RI Rivers Council. The statute which was passed last year defines the RI Rivers Council as an “associated function” of the Water Resources Board. Following up on some of the discussions from last month, Ms. Kerr is here to advise the Board on some of the activities of the Rivers Council.

Mr. Kerr thanked the Board for the opportunity to speak. We share the Board’s commitment and interest in the state’s rivers. The Rivers Council takes perhaps a broader view of rivers than perhaps you do at the Water Resources Board. We look at them for: their historic importance; their importance for economic development; recreational activities as well as their importance for water supply. The Rivers Council works in close partnership with all of our state agencies. On page 37 of the 2005 annual report, you can see a list of the members of the Rivers Council. Will Riverso (Board staff) serves on the Council.

She continued what she would do today was explain some of the things that the Council does and encouraged the Board to invite her whenever the agenda allowed for her to provide updates. Overall the charge of the Rivers Council is to “coordinate, oversee and review efforts to improve and preserve the quality of RI’s rivers; to develop plans to increase utilization of river areas throughout the state; and to support and strengthen grassroots watershed organizations as local implementers of the plan that we develop.” We do programs on all of these areas—the details of which are provided in the report. As for the handouts in the report: the blue is our work plan for 2006; the green handout is our conference which is coming up. She continued by highlighting some things which the Council is currently doing: there is a state guide plan element which the Council is responsible for—the Rivers Policy and

Classification Plan. The Plan was completed quite a few years ago, but we are always in the process of updating it. We are working on the policy piece of the planning—trying to work with other agencies to develop policies that in particular will be helpful to the local communities and the local watershed groups, which is really our target audience, to help them work at the local level to protect rivers. We met yesterday with Mr. Flynn, Department of Administration, and we are really hoping by the Spring/Summer this year to have the next edition of our plan to start moving through the state policy/technical review for the guide plan.

On our charge to develop plans for rivers, one exciting project on which we are working is our water trail project. We are working on it in partnership with DEM; we've met with Dr. Sullivan about it. We have the National Parks Service Rivers and Trails Program providing technical assistance on the project. Of course, we are working at the local level with all of our watershed organizations. Our goal for this year is to develop a conceptual plan for a water trails system around the state that links the rivers to the Bay as recreational assets. On April 25 we are going to be doing a planning charrette at Slater Mill. This is the last handout of our March/April events. The planning charrette is open to the public—anyone who is interested please let me know, we would love to have you. The charrette is an opportunity to get everyone together to start thinking together about what a water trails system for the state could and would look like. Then, we are going to do a paddling event in the fall—this would be a kickoff event for the water trail system. We are also hosting a council of councils where we work in partnership with local watershed councils. As of today, we have 9 watershed groups that we have formally recognized—one more, The Friends of the Moshassuck which will receive finalized recognition at our March 8 meeting—that would be 10 watershed groups with which we work. On March 25, we are bringing all the watershed groups together to do some strategic thinking together about what some of the major issues are that are facing RI's rivers and what we would like to do as a coalition to start addressing some of those issues, set some priorities, and develop plans to work together. This will also be at Slater Mill and is open to the public.

On fostering the public involvement in rivers, the big event of the year is our land and water summit (that is the green sheet you received). It includes a registration form—we'd love to have you there. It's on March 11 down in the URI Memorial Union. We do this conference annually, and this is the 3rd annual in partnership with the land trust council. The target audience for the event is grassroots conservationists—we have them all around the state. You have your conservation commission in your local town; there are over 40 land trusts working around the state and we now have 10-12 watershed organizations—not to mention all the other grassroots conservation organizations that there are around the state. The purpose of the summit is to get everyone together, to build networks amongst the different groups, to learn skills and provide tools that will help strengthen local conservation. Last year we had a blizzard on the day of our summit and we had over 200 people attend. We are hoping for 300 this year.

Finally, we are funded by the state at a rather minimal level. We have for the last 5 years received \$52,500 from the state, we report on those state funds in our annual reports. In the course of those years, we also report on the leverage that we get from that money, so we've received \$210,000 in total from the state and that has leveraged over \$1.5 million dollars in outside grants and volunteer efforts. We count the time that volunteers are working on river protection projects. We have requested from the legislature to increase our funding; we're looking for \$130,000 for FY07.

This concluded Ms. Kerr's report. Chairman Varin commented on workshop 3G, the Housing and Conservation Workshop Trust Fund. We have had a trust fund since the very early 1990s, and your description says this fund has never been funded, which is true although 14 or 15 years ago, I was notified that a private person wanted to donate money to the fund. It was either \$200,000 or \$250,000, so I went to the Controller's Office to establish an account to accept the money and in the absence of a state appropriation, he would not set up an account for me. So, the money never came. It is important to find some way to give that fund some life.

7. COMMITTEE REPORTS AND ACTION ITEMS RESULTING

A. Public Drinking Water Protection Committee—Chair Robert Griffith

(1) Water Supply Systems Management Plans (WSSMP):

a. City of Warwick—30-Month Interim Report. Request for Approval

Mr. Griffith noted that this committee had 2 action items today. The first item was the approval of Warwick's 30-month report. There are details on that at Enclosure 3. The City of Warwick did submit its

interim report in January. There were some comments and questions that had to be addressed, which have been addressed in full and to the satisfaction of staff. There were no agency review comments received, and the staff recommendation is that this be approved. Mr. Griffith moved approval with a second by Ms. Swallow, and the motion carried unanimously.

(2) Water Facilities Assistance Program:

- a. Bristol County Water Authority, Shad Factory Pipeline Repair Project Requisition #1, \$105,717.56. Requested payment: \$105,717.56; Recommended Payment: \$93,462.40. Request for Approval

Mr. Griffith explained that this was a request for payment in the amount of \$105,717.56 from the Bristol County Water Authority on the Shad Factory Pipeline Repair Project. The project was authorized under the water facilities assistance grant program, and this is the first requisition under that program is available for your review at Enclosure 4. In the absence of the staff engineer who had been overseeing, the General Manager completed a review of the invoice. He had some questions regarding some of the items and at this time recommends approval of \$93,462.40. This difference has been discussed with the Bristol County Water Authority staff, and they will be providing additional information and if that is satisfactory, we will recommend the balance (be paid) at a future time. Mr. Griffith moved approval of the recommended payment of \$93,462.40. Mr. Perry seconded. Mr. Penn added that this had also been reviewed by the Finance Committee and recommended payment of \$93,462.40. Chairman Varin also noted that this payment was for repair of the existing pipeline. The motion carried unanimously.

B. Property Committee—Chair Frank Perry

- (1) Rhody Rovers Big River Management Area Land Use Request for 7/16/2006 and 8/27/2006. Request for Approval. David Lynch, Rhody Rovers Member

This is a request from the Rhody Rovers Motorcycle Club to use the Big River Management Area in July and August for a motorcycle event called a scramble. This is an annual event that they hold for the benefit of the Exeter-West Greenwich Scholarship Fund. They use trails in the area. It's a controlled ride; it is not a race. They have used the trails in the past. All the trails that they use are approved by Jay Aron, Forestry Division of DEM. It's already been gone over—we have pictures of the trails proposed for use. There will be 2 events. One on July 16 and the other on August 27. They immediately follow along behind this event and clean up the area, and they repair anything which may have been disturbed. Mr. Perry moved approval with a second by Mr. Schock.

In the absence of Mr. Lynch, Ms. Maguire explained that last year these events raised \$20,000 for the scholarship fund. Mr. Stamp added that the Rhody Rovers had a good track record with the Board and it was a very local group. Ms. Maguire continued that there is about 7 to 10 miles which they use in the Big River Management Area. Chairman Varin asked about evidence of insurance, and Ms. Maguire and Mr. Perry noted that this requirement was part of the proposal.

Ms. Marks from the Audubon Society asked how many riders were involved and whether there was a process to insure that any trail damage was repaired. Mr. Perry noted that the organization had assured the committee that they have done it, based on past practice, they have done it. They have always gone over the route immediately after the event and repaired or done anything which Mr. Aron stated needed to be done to repair the area. Whatever they might miss is found by Mr. Aron and the Rhody Rovers come right back to repair. Ms. Maguire noted that on both days of the events, both she and Mr. Aron are out in the area and as soon as the gates are closed the activities are completed. Mr. Perry added that this event does not happen without being sanctioned that day by both Mr. Aron and Ms. Maguire. So, if there is any concern with fire danger, wet conditions which would cause more trail damage, the event will not go forward. Ms. Maguire explained that the number of riders was approximately 75.

Mr. Penn stated that in Mr. Mariscal's memorandum to the Board, he states that this event is against Board policy. Mr. Penn continued that he had gone along with this in years past because of the way the event was run, and its purpose in terms of the scholarship fund. Mr. Penn asked if some modification of policy should be made for this event to occur without opening the Pandora's Box for everything.

Mr. Mariscal noted that the reason he mentioned that is that currently URI and Brown University are currently completing a land use study for the Big River Management Area. Hopefully, we will have some document in hand in the next few months for discussion. I was concerned about making long-term commitments with any group because we may be changing our policies as we get closer to the time of actually producing water from that area. We will probably be more protective than we have been in the past. I wanted to alert the Board that there is language along those lines and in the longer term picture, we do not want to make any long-term commitments. We shied away from one proposal which will be discussed next.

Mr. Griffith added that rather than change the policy at this point, the approach which should be taken is making explicit exceptions to policy based on the performance of the applicant. It's a more prudent approach at this time. Mr. Penn suggested that the motion state this fact.

Mr. Perry was amenable to amending his motion. Therefore, Mr. Perry moved approval of this motion noting that it was an explicit exception to policy, and Mr. Schock again seconded this motion. The amended motion passed unanimously.

(2) Big River Management Area—Pancarowicz and Brouillard Properties, Encroachment Issues. Mark Boyer, Boyer Associates

Mr. Perry noted that this issue had been discussed in the past, and that it regarded encroachments as revealed in the recently-completed survey of the Management Area. With respect to the Pancarowicz property, there is an open barn type structure as well as some stumps which had been placed on Management Area property. Mr. Aron's suggestion is that the stumps will be allowed to stay on the property. Additionally, there is a fence on the Board property, which it has been agreed when there is maintenance done to the fence, it will be moved back to the property line. Mr. Perry continued that at the time of the taking, the then owner of the property was compensated to move the structure. However, the structure was never moved, and the current owner is using it. Pursuant to Board policy, all use of the property must be paid for whether the structure is occupied or not.

Therefore, the committee recommends entering into leases with both of these property owners with the standard requirement that these structures will all be removed if necessary for construction of the reservoir or whatever else should happen in the area. At this point we have an appraisal from White Appraisal Company. On the Pancarowicz property, a reasonable rent would be \$1,000 per year; and on the Brouillard property, a reasonable rent would be \$100 per year. Mr. Perry pointed out that the Board would be leasing only the property to these individuals as the buildings belong to these property owners not to the Board. Mr. Perry moved going forward to the State Properties Committee for approval of these leases. Mr. Stamp seconded.

Mr. Penn asked what the terms of these leases would be, and Mr. Perry noted that it would probably be a standard state lease, which would have a limit of 10 years. Ms. Maguire added that it would probably have an option for one 10-year renewal as well. Mr. Penn noted his belief of the importance of adding not only the rate for the lease but also the term as well. Chairman Varin added that it should also be added that if the Board needed them out sooner, they would be obligated to cooperate.

In response to a question from Ms. Swallow about how this happened, Mr. Perry explained that it was in an open field and the structure was constructed over the property line, which was the reason for having the survey done to determine when and where these issues were. There were no clear boundaries before the survey.

Ms. Maguire explained that Mr. Pancarowicz already had new fencing which he intended to install (on the correct property line) as soon as the ground thaws. Ms. Swallow wanted to know how the Board could ensure that no other bordering property owners were encroaching on Board property. Chairman Varin explained that there was no way to guarantee it.

Mr. Perry explained that prior to this survey, there were no markings, but now everything has been marked and recorded in every town hall.

Mr. Schock was concerned with liability because unlike on the other leased properties, the State does not own these buildings, so if someone got injured would we be liable? Mr. Griffith noted that this qualification should be spelled out in terms of indemnification of the State and the Board in the lease.

Dr. Sullivan asked if there should be an escalator clause in the term of the lease. Mr. Griffith explained that there was standard language in state leases. Mr. Perry noted that the only other property that the Board leased was the trailer park and that does have an escalator clause in it. The other properties are appraised every 5 years; therefore, these 2 properties would fall into that category and if adjustments are needed, they will be made.

Mr. Perry moved going forward to the State Properties Committee for approval of these leases with the all the required language. Mr. Stamp seconded. This motion carried unanimously.

(3) New England Mountain Bike Association Big River Management Area Land Use Request for Events.
Request for Approval. Peter Gengler, NEMBA Member

Mr. Perry explained that this was a request from the New England Mountain Bikers Association who would like to hold a fundraising event in the Management Area on September 10. There will be 100 – 150 riders. Mr. Perry noted that a second proposal presented by this group is that they would like to partner with the Board in identifying, maintaining and opening trails.

Mr. Gengler asked to address the second issue first. He stated that Bridge One Press published a map of Big River this year; he stated that because of this publication it was likely that recreational use of Big River would increase. What they have proposed is that their RI Chapter would do: trail maintenance, apply for grants for bridges; develop a phone tree for reporting violations.

Mr. Keyes, Executive Director of the New England Mountain Bike Association then spoke. He explained that the organization was a non-profit. Their mission is to promote educational and responsible mountain biking, preserve open spaces and maintain the trails on which we ride. We do a lot of recreational events and from that we draw many volunteers for our conservation events. We are a 20 year old organization and we partner with state agencies, in RI we work with DEM mostly in Arcadia. Mr. Aron is very familiar with the work that we have done. What we are requesting is a charity fund raiser similar to what we have done in Arcadia with Mr. Aron. The beneficiary of that fund would be Big River. What we would like to do is raise some money so that we might improve the parking lot, put up a kiosk—something that would begin to make that area user friendly, and whatever it is the Board would like.

Chairman Varin asked whether or not the vehicles were motorized and Mr. Keyes answered no. This would be a single path recreational, non-competitive event where people go at their own pace. We create 2 or 3 loops—one would be a family loop; an approximately 11-mile loop for intermediate riders and probably a 15-mile extension of that loop for more advanced riders. Chairman Varin asked about insurance. The State and the Board would be an additional insured on their \$2 million event policy.

Mr. Perry explained that this was discussed by the committee and noting the caveats—all the trails would definitely have to be approved. Once they layout their trails for September, it would have to be approved by both Mr. Aron and Ms. Maguire. Obviously, the insurance must be in place and it must be understood that depending on weather conditions, this event could be canceled. Mr. Perry moved approval with a second from Mr. Parsons.

Mr. Stamp noted his objections to this event going forward. Mr. Stamp explained that NEMBA was a much larger organization than the Rhody Rovers. The Rhody Rovers was a local organization that benefited the local community. Mr. Stamp stated he believed that this group was advocating for the benefit of this Board and he didn't see the necessity of taking this any further.

Mr. Penn commented that on Block Island there were more than 25 miles of greenway trails that are maintained by the Nature Conservancy. The Conservancy has made it policy to prohibit mountain bikes on those trails because of deterioration of those trails from the bikes as opposed to walking.

Mr. Griffith added that in response to the above-referenced objections he was less inclined to approve this request. He would, however, like to further explore this issue rather than cut it off completely at this time. He had a couple of procedural questions were this to go forward. He believed this would be something that would require the concurrence of the State Properties Committee as it is a use of public lands and we would essentially be entering into a licensure agreement for use of the property. He requested that the General Manager research this issue. Mr. Griffith noted that he was unsure whether or not the Rhody Rovers event has been before the State Properties Committee and stated that if not it probably should have been. This was his opinion, but it would require verification. Back to the request at hand, the applicants have indicated that they are already using state properties in Arcadia and Mr. Griffith noted his believe that this was probably a more appropriate use of public lands. We also have other public lands, the George Washington Management Area certainly comes to mind if the applicant is looking for alternatives to Arcadia. He also mentioned Snake Den which is still largely undeveloped and has some interesting terrain which might appeal to mountain bikers as well. Mr. Griffith added that he would be willing to table this motion until the Board had more time to do its due diligence, and then bring it back at a subsequent meeting.

Director Sullivan wished to echo some of Mr. Griffith's comments. He believed this to be a subtle though not insignificant shift of policy. We are receiving all sorts of demands for all sorts of recreational access to all sorts of properties. The challenge before this Board is not unlike many of the challenges before DEM—use allocation. Some of the lands currently being used for motorized or pedal-powered vehicles have been acquired with fish and wildlife funds—typically surcharges to the hunter and fisher, and they are sharing, begrudgingly at times, and this is a case for which we need to review a number of mechanisms if it's approved to protect the resource. One concern is having some kind of bond if things don't work out and repairs are not done, he also believed it should go before State Properties, and he believed this should be looked at very carefully.

Ms. Marks added that she has spoken for years against the use of the area by the Rhody Rovers, and when we discuss repairing the trails the concern is that this is not compatible with the retention of this land for water resource purposes. The trails are an aberrant to the rules that is currently used for walking and hunting, but both motorcycles and bicycles have a much greater impactation than human feet on a trail. If we're talking about infiltration of water into this area for ground water, it's not an extensive use; however, it's just one more creeping advance into this area, and Ms. Marks does not believe it's compatible with the uses of the land for the Water Resources Board.

Chairman Varin admitted that it's very vague but the legislation under which the Board currently operates does mention recreation without defining such or how to manage. We have done this on an ad hoc basis over the years. He then asked if the NEMBA would like to respond.

Mr. Gengler added that there was a wide-spread myth that there was significantly more impact from mountain biking than there was from walking—it is a myth. He assured the membership that there is a wide body of science that attests that the impact of mountain biking are commensurate with that of walking/hiking. This is a far cry from motor bikes or horses. He hoped that the Board would at least consider this request and not reject it out of hand. His added that the RI Chapter was about 125 strong and they are the ones who will be attending this event, they are the ones that would assist in Big River and maintain the trails and work on any clean up with Mr. Aron. The event would be advertised to their membership, but what they are trying to do is galvanize the RI people to help learn about and support and steward the Big River Management Area as they do in Arcadia. What RI really lacks is open space—Arcadia and Big River being the number 1 and 2 spots. Big River is an incredible resource for water protection, but also has a potential for sustainable, healthy recreation. Our permanent goal is to build, sustain and maintain trails and we see this as asset to RI open spaces.

Mr. Schock wanted to know if the management plan does or will address fire trails in the Big River Management Area. Maintenance of fire trails regardless of whether the Board does it or receives assistance from groups such as NEMBA, it's an important issue.

Ms. Crawley explained that the idea is to be proactive and identify the types of trails which exist, so that this information can be presented to the Board up front so it can make decisions about what should or should not happen with each individual application, and as a tool for managing the entire area. Those are the goals of putting together a master plan for the Big River Management Area. Some of the work that Brown University did over the summer involved going out and GPSing all of the trails that do exist and then classifying them—that is the first step in trying to make some decisions about how things get used and if they get used.

Mr. Gengler responded that the existing network of trails (used map to illustrate) and noted they were not even to the north side of Route 95. There is an extensive trail network within the Management Area. Mr. Gengler explained the map was one he made for himself, so he does not become lost within the Big River property. He added that on a fairly routine basis they bring people out of Big River who are lost: hikers, birders, mountain bikers and motorcyclists. We have all assisted in searches for lost persons. We are trying to develop a more positive relationship. Both Mr. Gengler and Mr. Keyes have been to IMBA school—trail school and we are nationally seen as experts for designing sustainable trails for multiple uses. This is the kind of expertise we would like to bring to a resource such as Big River, and be an asset to the Board. In the summertime, you have approximately 150 people in there who could be helping you and keeping an eye on the property. We are a big resource when it comes to clean ups.

Mr. Stamp noted his belief that this is a slippery slope. There is a lot of activity in the area over which the Board does not have control, and as soon as this starts to be advocated there will be tons of other groups that wish to do the same here. This is not our purpose; it isn't to manage a recreation facility for those interested in these pursuits.

Mr. Griffith observed that we already have a lot of people in there using the area and we do not have the resources to control them. With sanctioned operations such as this, we legitimize a particular group that does perform a service for our indirect benefit and the benefit of other users who are in there under the recreational provisions of the area. We have obviously identified a number of pros and cons which require further investigation. Mr. Griffith moved that it be sent back to committee for further evaluation and when it is next on the committee's agenda, that all members who have an interest in this be notified so they may attend as well. Dr. Sullivan seconded this motion, and this motion carried unanimously.

C. Finance Committee—Chair William Penn

Mr. Penn stated that there was nothing under this item for the Board.

D. Construction, Engineering and Operations Committee—Chair June Swallow

Dr. Combs noted that this committee had not met.

E. Legislative Committee—Chair Daniel W. Varin

Chairman Varin noted that there was not a lot of legislation filed yet, so there had not been a separate legislative committee meeting. He continued that now was the time to decide what position if any the Board wished to take on these particular bills:

H 6752, S 2143

Relating to Waters and Navigation - Water Resources Board (Separation of Powers) Recommendation – For Information and Discussion

This bill regarded separation of powers. Mr. Mariscal had testified at both House and Senate hearings. He explained that the committee members were as mystified as we are by this bill because they very politely told Mr. Mariscal that they had no choice but to approve because everyone was “on board” with the changes to these boards and commissions. They were supportive of Mr. Mariscal’s comments which were that 2 of our current members would become non-voting members—EDC and Administration, whereas DEM and Health would remain voting members. The legislators agreed that having 2 significant departments such as Administration and EDC would be desirable to have them as voting members because everything we do affects them directly—whether it be planning or economic development. However, they stated their hands were tied.

Mr. Mariscal noted that when he attended the House session that immediately prior to his testifying there was discussion regarding the State Properties Committee and how in that case the approach would be rather than the Governor appointing the Director of Administration that the Legislature would direct the Director of Administration to appoint someone, and that seemed to satisfy all concerned. Mr. Mariscal suggested this be done with regard to this Board as well. However, when he asked the same of the Senate, they were mystified by this approach and had never heard of such a thing.

Mr. Perry stated that the Board should notify the Governor. He didn’t believe it would be remiss to send letters to the Senate and House Committees anyway. Mr. Stamp stated his belief that the Board should not take a position. Mr. Perry was concerned with having non-voting members and didn’t understand the purpose of their being there. Mr. Stamp explained that they would be there to inform—nothing more. Dr. Sullivan agreed with Mr. Perry and wanted to add that it would be wise to advise the leadership of both houses reiterating the concerns expressed by Mr. Mariscal. Mr. Perry moved approval of this action with a second by Mr. Schock. With the opposition of Mr. Stamp, the motion carried.

H 6755

House Resolution – Extending Reporting Date of Commission Studying BRMA
Recommendation – For Information and Discussion

Chairman Varin explained that this committee had never met and that Representative Moffitt had requested an extension of the commission until March, 2007, which was passed. This information was provided strictly for the information of the membership. Chairman Varin added that should the committee ever meet, it will be comprised of 3 members appointed by the Speaker of the House, Dr. Sullivan and Chairman Varin.

S 2354

Related to Water Supply – Drinking Water Protection
Recommendation – Oppose

Chairman Varin explained that this bill had been introduced last year, and he had testified on it in both houses. Fortunately, Ms. Marchand who was the then General Manager, Chief Engineer of the Pawtucket Water Supply Board and who is currently serving in the same capacity in at the Providence Water Supply Board testified in the Senate committee hearing and the committee never reported it out, so it is back again this year. Mr. Schock moved opposition with a second by Mr. Perry, and the motion passed unanimously.

H 7024, S 2262

Joint Resolution – Commission Study of Kent County Water Authority
Recommendation – For Information and Discussion

Chairman Varin explained that this item was for information and discussion, and noted that this had already been discussed. Mr. Perry added that from what he could see so far, whatever comes out of this commission would have statewide implications.

F. Strategic Committee—Chair Daniel W. Varin

Chairman Varin noted that this committee had not met.

G. Nominations Committee—Chair Frank Perry

Mr. Perry explained that the committee would be accepting declarations of interest from anyone interested for chairman and vice-chairman. The vote will be taken at the March meeting. Mr. Perry explained that this committee meeting would be held on the second Tuesday of March at 11:45 a.m. in the Board Conference Room.

H. Big River Management Area

(a) Presentation on Big River Water Projects, Juan Mariscal, PE

This was a presentation given by Mr. Mariscal to the Commission to Study all aspects of the Kent County Water Authority.

(Please see attached presentation.)

(b) Big River Groundwater Project: Action Item, Michael Sullivan, Ph.D.

DRAFT: Not Approved By RIWRB

**Rhode Island Water Resources Board
Meeting #447 of February 14, 2005
Agenda Item H.b: Big River Groundwater Project**

Board Member Dr. Michael Sullivan, Director, Department of Environmental Management, made a motion regarding the development of the Big River Management Area groundwater project. Mr. William Parsons seconded the motion.

“I move that the Rhode Island Water Resources Board immediately develop a joint RFQ/RFP of the Big River Management Area designed and released no later than April, 2006 with a response required no later than July 1, 2006 to the following points:

Provide all individual and collective goods and services to design, finance, construct, and operate for a period of not less than thirty years a well water withdrawal of at least 5 MGD and treatment system capable of providing up to 10 MGD of potable water into a public distribution system in an integrated manner consistent with statewide demand and focus on resource conservation and stewardship.”

Summary of Discussion

The ensuing discussion of the motion raised the following comments, questions and issues:

Rhode Island Water Resources Board:

- The motion had been made possible by the “quiet and unrecognized work” of the Rhode Island Water Resources Board (RIWRB) and staff since the early 1990s;
- Does the RIWRB have the staff capacity to meet the timeline outlined in the motion? It was noted this was not a comment on the staff’s qualifications or abilities but the nine-member staff is presently fully committed to other projects and programs;
- Should this be a RIWRB or RIWRB-Corporate initiative?
- Does this project require the approval of the State Properties Committee?
- Additional resources would be needed by RIWRB and DEM to meet any time table at any level;
- Current RIWRB budget does not provide support for a consultant;
- Dr. Sullivan will attend a meeting today at 3 p.m. to begin discussions on financial resources needed for this project;
- We have to look at water as being precious;
- We need to be stewards of the product (water);
- We have not identified all the questions that would provide instruction and guidance to a consultant;
- The project should be assigned to a RIWRB Committee;
- The Board members would work in conjunction with RIWRB staff and other agency staffs to define guidance to staff and a consultant for the RFQ/P;
- The RIWRB Corporate has always used state procedures in anything it has done. That has kept the RIWRB out of a lot of trouble. We should continue working that way;
- Profoundly aggressive schedule that should be addressed further next month;
- The RIWRB appreciates some pressure on this issue and this motion answers questions raised to the Governor’s Office in the fall.

RFQ/RFP and Need for a Consultant:

- Do we have the funding for a consultant?;
- The project should include finding the resources to do the work and to hire a consultant;
- There is no money in the RIWRB budget for a consultant at this time;
- There should be an interim step to engage a consultant to assist in the development of the RFQ/P. While this might cause slippage in the schedule it would result in a better product;
- Turn-around time for the development of the RFQ/P is very short (approval by the RIWRB would have to be made in April for issuance in April. Respondents to the RFQ/P would only have 11 weeks to make their submittal in July). For a \$30 million, 30-year project, this may not provide enough time for a quality submittal from a quality submitter.
- It is uncertain if the work to find the resources for the project and hire a consultant can be completed “no later than April, 2006”;
- As part of the consultant’s work there is a need to update the 1999 Business Plan (including engineering development concepts and a financing plan) for the BRMA groundwater development project. This would be the basis for RIWRB policy and project decisions;

Project Options:

- Fully support developing the water supply in the Big River Management Area;
- How the BRMA groundwater is developed is going to be a very complex issue;
- What is the starting point for this project? Is there a scenario in USGS’ 31 simulations that could provide that starting point?
- Need to rely on the USGS reports;
- The use of USGS Management Model #09 with adjustments, as DEM believes are necessary, should preserve water bodies and stream flow. This decision should be the starting point for respondents to the RFQ/P. Without this decision, respondents will spend three years permitting at the state and federal level. KCWA spent five years doing this;
- MM09 is an appropriate starting point;
- The original proposal for the motion was for 10 mgd of withdrawal and 10 mgd of treatment;

- There are a range of options for implementation of the project including if the RIWRB, the state, another public entity or a private entity should be the developer and/or operator for a 30 year period;
- Where will the water produced go and how will it be integrated into the total water supply of the state?
- There has been at least one public water supplier that was very interested in this project and had submitted a proposal several years ago;
- Respondents can provide a proposal but will need additional time to provide the necessary detail for their proposal;
- If a public agency or a private company were interested both would be regulated by the PUC; Considerably more time may be necessary to get approvals from the PUC;

The Motion:

- The discussion of the motion was not intended to diminish or detract from the purpose of the motion but to make certain the RFQ/P will be a quality product;
- The need for the consultant is an already included concept in the motion;
- The discussion on this motion was not expected to end at today's meeting;
- An important consideration in the motion is the reference to the project being completed in an "integrated manner consistent with statewide demand and focus on resource conservation and stewardship";
- We should keep the dates in the motion intact but revisit the timetable at the next meeting of the RIWRB;
- The motion should identify a starting point because without one, we really don't know what to do. USGS Simulation model #09 should be that starting point. DEM should tell the RIWRB that it either meets their requirements or how it doesn't meet their requirements. DEM has reviewed this report and model;
- The groundwater withdrawal noted in the motion is on an annual average daily basis. The management model #09 has wide fluctuations. The high number is 3 – 4 times the low number;

After Discussion, Dr. Sullivan withdrew his motion and Mr. Parsons withdrew his second. Dr. Sullivan then made a Revised Motion:

"I move that the Rhode Island Water Resources Board immediately seek financial resources and essential consultant services to develop a joint RFQ/RFP of the Big River Management Area designed and released no later than April, 2006 with a response required no later than July 1, 2006 to the following points:

Provide all individual and collective goods and services to design, finance, construct, and operate for a period of not less than thirty years all well water withdrawals of at least 5 MGD on an annual average basis and a treatment system capable of providing up to 10 MGD of potable water into a public distribution system in an integrated manner consistent with statewide demand and focus on resource conservation and stewardship.

In addition, it is a profoundly aggressive schedule. The USGS management model #09 [Note: this refers to USGS Scientific Investigations Report Number 2004-5301, *Effects of Alternative Instream-Flow Criteria and Water Supply Demands on Groundwater Development Options in the Big River Area, Rhode Island*, Table 2-19, Management Model MM-09] is the appropriate starting point. If there is a desire to review timeframes, they can be reviewed at next month's meeting of the RIWRB once we have the sense if there is the financial and political will to make those resources available. "

Motion Seconded by Dr. Griffith and Dr. Combs.

Approved Unanimously (with one abstention by Frank Perry "out of an abundance of caution" since KCWA could be a respondent to the RFQ/P). Mr. Penn had left the meeting prior to the vote being taken.

Referral to Committee: Chairman Varin referred the Project to the RIWRB Construction, Engineering and Operations (CEO) Committee. He added that he will review the membership of the CEO Committee to determine if changes in membership would be necessary.

8. NEW BUSINESS

9. OTHER BUSINESS

(1) Shad Factory Briefing—Pasquale DeLise, Executive Direct, Bristol County Water Authority

Time did not permit this update.

10. RECESS OF BOARD FOR BOARD CORPORATE BUSINESS

With no objection, Chairman Varin recessed the Board for Board Corporate business at 3:06 p.m.

11. RETURN FROM BOARD CORPORATE BUSINESS

At 3:11 p.m., the Board returned from Board Corporate business.

12. ADJOURNMENT

On a motion by Mr. Stamp, seconded by Mr. Parsons, the Board unanimously voted to adjourn at 3:11 p.m.

Respectfully Submitted,

Tracy Shields
Personnel Aide

\\Main\shared\Board\minutes\2006\feb bd mins.doc

**Rhode Island
Water Resources Board
&
Water Resources Board Corporate
Rhode Island Water Resources Board
Organizational Structure**

- Executive Agency within State Government
 - Established in 1967
 - RIGL Chapter 46-15, 15.1, 15.2, 15.3, 15.6, 15.7
 - 10 member Board
 - Five Public Members
 - Including two Water Suppliers
 - Agricultural Council
 - DEM, DOH, DOA
 - 9 staff members
- Rhode Island Water Resources Board
Legislative Authority**
- RIGL 46-15-1: Legislative Declaration
 - (6) “It shall be the duty of the water resources board to regulate:
 - the proper development,
 - protection,
 - conservation and
 - use of the water resources of the state.”

-
-

**Rhode Island Water Resources Board
Legislative Authority**

- RIGL 46-15.1-4: Purposes of the WRB
- To Establish Water Supply Facilities;
- To Lease those Facilities;
- To Contract for the Use of the Facilities; OR
- To Sell the Water from the Facilities and
- To carry out the power & duties set forth in this chapter

-

**Rhode Island Water Resources Board Corporate
Legislative Declaration**

- RIGL 46-15-1-1: RIWRB Corporate:
 - A Body Politic and Corporate
 - A Public Instrumentality of the State
 - Distinct Existence from the State
 - Not an Agency of State Government

-

•Members of RIWRB-Corporate are the same as the RIWRB

-
-

**Rhode Island Water Resources Board Corporate
Legislative Authority**

•RIGL 46-15.1-4: Powers of WRBC

- (3) To Purchase, Hold and Dispose of Real Estate:
- (6) To Make Contracts:
- (9) To Apply & Contract for assistance (and grants) from the United States and others:
- (11) To invest & deposit funds:
- (12) To Establish, Operate & Maintain or Lease to Others or to Contract with Others Water Supply Facilities:
- (13) To Purchase and Sell Water

-

Rhode Island Water Resources Board & Corporate Legislative Authority

•RIGL 46-15.1-4: Powers of RIWRB & RIWRBC

- (15) To acquire the sites, lands, dams, waters, water rights, easements & other property ... for reservoirs groundwater wells and land for pipes (and other related appurtenances)
- (16) To contract or purchase reservoirs, wells and well sites facilities (etc.) including existing facilities of public or private water systems;
- (17) To acquire assets and to effect the merger into itself of any corporations or other organization including public and private Systems

Rhode Island Water Resources Board & Corporate Legislative Authority

•RIGL 46-15.1-19: Surface Reservoirs

•No funds may be used for the design or construction of any surface reservoirs without the approval of the general assembly

•The RIWRBC may not use its powers of eminent domain for the acquisition of sites for surface reservoirs without the approval of the general assembly

Rhode Island Water Resources Board & Corporate Legislative Authority

•RIGL 46-15.2-4:

•Water Facilities Assistance Program

—(a) “There is hereby established in the water resources board a Rhode Island water facilities assistance program.”

—“...to assure proper and systematic development of coordinated water supply (facilities).

Rhode Island Water Resources Board & Corporate Legislative Authority

•RIGL 46-15.3-1.1: Findings

—“To insure that water supply system management plans are prepared, maintained and carried out by each” water supply agency.

—“Plans and their execution (shall) achieve effective and efficient conservation, development, utilization and protection of this finite natural resource.”

-

**Rhode Island Water Resources Board
Legislative Declaration**

•RIGL 46-15.7

•Management of the Withdrawal & Use of the Waters of the State

- (4) The Water Resources Board is the state agency which manages the withdrawal and use of the waters of the state of Rhode Island

**Rhode Island Water Resources Board
Key Projects**

- Water Supply System Management Plans
- Groundwater Protection Site Acquisition
- Supplemental Water Supply
- Water System Emergency Interconnections
- RI Public Drinking Water Protection Program (user fee surcharge program)

**Rhode Island Water Resources Board
Key Projects**

- Bristol County Water Authority
 - Water Treatment Facility Upgrade
 - Shad Factory Pipeline Repair & Replacement
- Water Use and Availability Studies
- Big River Management Area
- Drought Management Planning
- Water Facilities Assistance
- Hydrologic Modeling Efforts

**Rhode Island Water Resources Board
Water Supply System Management Plans**

- Legal Authority: RIGL 46-15.3-1.1

—“To insure that water supply system management plans are prepared, maintained and carried out by each” water supply agency.

—“Plans and their execution (shall) achieve effective and efficient conservation, development, utilization and protection of this finite natural resource.”

•

**Rhode Island Water Resources Board
Water Supply System Management Plans**

- Applicability
 - Suppliers which sell >50,000,000 gallons/year
- (>~136,900 gpd)

- Submittals
 - First plans submitted to RIWRB in 1997
 - Updates Required:

- Major: Every Five Years
- Interim Updates: Every 30 months
- Annual Reports

**Rhode Island Water Resources Board
Water Supply System Management Plans**

- Water Supply Plan Contents
 - Executive Summary & Goal Statements

- Description of the Water Supply System
 - Water Quality Protection Component
 - Mapping Requirements (District, Source)
 - Supply Management
 - Demand Management (Current, Future)
- Rhode Island Water Resources Board
Water Supply System Management Plans**
- Water Supply Plan Contents Continued
 - Emergency Management
 - Drought Management
 - Implementation Schedule
 - Financial Management
 - Coordination

•

**Rhode Island Water Resources Board
Water Supply System Management Plans**

- Agency Review of Plans: The Process
- Plan Submitted to RI WRB
- Reviewed By
- Water Resources Board
- Statewide Planning Program
- Department of Health
- Department of Environmental Management
- Public Utilities Commission

•

**Rhode Island Water Resources Board
Water Supply System Management Plans**

- Agency Review: The Process
- Review coordinated with
- State Policies and Regulations
- Local Comprehensive Plans
- Affordable Housing Plans
- Infrastructure Replacement Plans
- Master Plans
- Other Appropriate and Relevant Information, Data, Plans, etc.

**Rhode Island Water Resources Board
Water Supply System Management Plans**

- Agency Review: The Process
- 180 Day Review Period
- WRB forwards Plans to Review Agencies
- 90 Days to Provide Comments to WRB
- RI WRB coordinates all comments & completes review
- Recommendation made to the WRB Board through the Public Drinking Water Protection Committee

—

**Rhode Island Water Resources Board
Water Management Program**

•RIGL 46-15.7

•Management of the Withdrawal & Use of the Waters of the State

•(4) The Water Resources Board is the state agency which manages the withdrawal and use of the waters of the state of Rhode Island

**Rhode Island Water Resources Board
Water Management Program**

•Water Allocation Program Advisory Committee Created in June 2002

•Interdisciplinary group (60 – 150 persons)

—Public agencies: federal, state, local

—Water Suppliers

—Affected Users & Businesses

—Community & Environmental Groups

—Academics

•

**Rhode Island Water Resources Board
Water Management Program
WAPAC Mission**

• Develop Recommendations To:

—Manage ground and surface water withdrawals

—Protect public health, safety & welfare

—Provide fair and equitable allocation of water

—Promote continued existence, diversity and health of wildlife and plants

—Insure long-range considerations are paramount

**Rhode Island Water Resources Board
Water Management Program
WAPAC Sub-Committees**

**Rhode Island Water Resources Board
Water Management Program
WAPAC Recommendations**

• 84 Total Recommendations

• 21 Top Priority Recommendations

— Data Elements

— Management & Regulatory Elements

— Financial & Funding Elements

— Resource Conservation Elements

— Education & Outreach Elements

**Rhode Island Water Resources Board
Water Management Program
WAPAC Transition To RIWRB**

• WAPAC Consensus Building Meetings

— December 18, 2003 &

— January, 2004

- **WRB Strategic Planning Committee Workshop**
 - **January 29, 2004**
 - **Presentations by WAPAC Sub-Committee Chairs**
- **Adoption of Recommendations by RIWRB**
 - **February, 2004**
 - **April, 2004**

**RIWRB Water Management Program
Adopted Recommendations**

- **Priorities Water Use Policy**
- **Water Management Program (Watershed-Based)**
- **Water Use Reporting**
 - **Mandatory for Major Suppliers**
 - **Voluntary for Minor and Self Suppliers**
- **Streamflow Working Group**
- **Develop Collaborative Education Program**
- **15-person Implementation Team**

- **1928: Project Conception: Legislative Commission Report : *Water Resources of Rhode Island***
- **1952: Water Resources Commission Report: *Water Resources of Rhode Island***
- **1957: Water Resources Coordinating Board: *Feasibility of Development of Water Supply Reservoir***
- **1960: WRCB Report & Recommended Legislation : *Reservoir Sites for Future Water Supply***

- **1962: \$5M GO Bond Referendum:**
 - **Big River Reservoir Land Acquisition**
 - **Voters Rejected: 60% - 40%**
- **1964: \$5M GO Bond Referendum:**
 - **Big River Reservoir Land Acquisition**
 - **Voters Approved: 58% - 42%**
-

- **1970s: Two GO bond referenda rejected by Voters: 53% - 47% & 58% - 42%**
- **1980: GO bond referendum: Approved by Voters:**
 - **Reservoir Design: \$5.23M**
 - **60% - 40%**
- **1984: Design 20% Complete**
- **1986: GO bond referendum: Approved by Voters:**
 - **Plans, Studies & Permitting: \$1.6M**

—63% - 37%

●1989: Water Coordinating Council Established

—Initiates Statewide Water Study by A.D. Little

●1989: Governor DiPrete initiates Big River groundwater well development planning as a interim water supply source

●1990: EPA Questions Need for Big River Project

●1990: Statewide Water Study by A.D. Little Published

Rhode Island Water Resources Board

Big River Reservoir: Estimated Costs

Rhode Island Water Resources Board

Big River Reservoir: Estimated Costs

What do You Get For

\$1.1 Billion ?

Rhode Island Water Resources Board

Big River Reservoir: Economic Impacts

Rhode Island Water Resources Board

Big River Management Area

Open Space Legislation

●1993 RIGL 45-36-1 BRMA “Open Space”

●RIGL 45-36-1: “Open Space” - “any space the preservation or restriction of the use of which would ...
Protect natural streams or water supply”

●1996 RIWRB adopts Policies for public use of the BRMA lands to protect the future use of these lands as a water supply source

●2006 Policies and Plan being studied and updated

Rhode Island Water Resources Board

USGS Studies

●1996: RIWRB establishes cooperative agreement with USGS

●Groundwater well development studies initiated

—1996 - 1998 Data collection

—Since 1996 four major studies completed

—defines the BRMA water supply capabilities

Groundwater
Simulation
Models

**Rhode Island Water Resources Board
Big River Groundwater Wells:
Well Evaluations**

● **13 Wells Evaluated**

— **4 KCWA Mishnock Area**

— **3 Carr River Area**

— **6 Big River Area**

● **(3 hypothetical)**

**Rhode Island Water Resources Board
Big River Groundwater Wells:
Possible Water Production**

● **31 Simulations Evaluated**

— **Each with different streamflow criteria**

● **Hydraulic Limit = 16 mgd for all 13 wells**

— **Pumping at this rate = no flow in streams**

**Rhode Island Water Resources Board
Big River Groundwater Wells:
Possible Water Production**

● **Possible Maximum Withdrawals:**

— **Big River Area Only**

● **5 – 7 mgd (annual average daily basis)**

● **2 – 4 mgd (late summer average daily basis)**

—

● **> 4 mgd possible if wells are pumped only in the summer months (average summer day basis)**

**Rhode Island Water Resources Board
Big River Groundwater Wells: Capital Costs
Rhode Island Water Resources Board
Big River Groundwater Wells: Schedule**

● **Highly Dependent on Resources Available**

•

**Rhode Island Water Resources Board
Big River Groundwater:
Economic Impacts**

**Rhode Island Water Resources Board
Comparison of Alternatives**

**Rhode Island Water Resources Board
State & PWSB Water Usage**

**Rhode Island Water Resources Board
Statewide Water Usage Overview**

● **Rhode Island Public Water Supply**

— **Serves 88% of State Population**

— **119.21 mgd**

● **28 “Major” Water Suppliers + Richmond + Block Island**

— **Provide 98% of all Publicly-Supplied Water**

— **116.83 mgd**

● **~450 “Small” Public Systems**

—Provide 2% of all Water Used

—2.38 mgd

—15 Or More Service Connections

Rhode Island Water Resources Board

Statewide Water Usage Summary

Rhode Island Water Resources Board

PWSB Water Usage Summary

•PWSB Scituate System Serves:

—Nearly 70% of State Population

—9 Public Water Systems + Providence System

—14 Communities

—Legislatively Authorized to Provide Water to Additional Communities

•Average Demand FY 2005: 69.3 mgd

—Wholesale Customers

—Retail Customers

PWSB Scituate System

•2005

•Average Day Demand

•69.3 mgd

•

•Maximum Day Demand 119.1 mgd

Rhode Island Water Resources Board

PWSB Scituate Reservoir

Rhode Island Water Resources Board

Average, Maximum & Capacity

•Statewide (All Major Public Systems)

•Average: 116.66 mgd

•Maximum: 201.63 mgd

•Capacity: 229.80 mgd

Rhode Island Water Resources Board

Kent County Water Authority Issues

•Present Supplies

—Mishnock Groundwater wells

—Hunt River wells

—Providence Water Supply Board

•

•

Rhode Island Water Resources Board

Kent County Water Authority Issues

•Three connections to the PWSB

—Cranston: Oaklawn Avenue

—Scituate: Clinton Avenue Pumping Station

—Warwick: Bald Hill Road Pumping Station (Warwick water from PWSB)

**Rhode Island Water Resources Board
Kent County Water Authority Issues**

•KCWA System Demand

—Average Daily Demand: 10.46 mgd

—Maximum Daily Demand: 19.84 mg

**Rhode Island Water Resources Board
Kent County Water Authority Issues**

•HAP Aquifer: August Withdrawals

**Rhode Island Water Resources Board
Kent County Water Authority Issues**

•HAP Aquifer

•

•Only Source of Water for:

•North Kingstown

•Quonset Point

•

•Kent County Water Authority:

•Two Other Potential Sources

—Providence & Mishnock

•

**Rhode Island Water Resources Board
Local Desalination Project**

•Brockton, MA Project

—10 years in discussion and planning

—Facility to be located in Dighton, MA

—On Taunton River

—Will supply 15 -20% of Brockton water

—10 mgd facility

—\$60 Million

•

**Rhode Island Water Resources Board
Priorities**

•Development of Water Management System

—Provide Water Data to Cities & Towns

—Relate new Land Development Projects to Water Availability

**—Amend State Land Use Plan to include Water Related Factors
LAND USE 2025**

•Rhode Island State Land Use Policies and Plan

•State Guide Plan Element 152

Where Are We Going?

**Rhode Island Water Resources Board
Priorities**

Oversseeing Body: RI Water Resources Board
Public Body: RI Water Resources Board

- **Big River Management Area**

- Establish Variable & Sustainable Level for Withdrawal of Groundwater in the BRMA
- Determine Who & How to Develop BRMA groundwater
- Reduce/Eliminate Trash Dumping at BRMA

- **Long-Term Funding for Streamflow Gages**
Rhode Island Water Resources Board
Priorities

- **Reduce Excessive Residential Water Use**
 - Objective 65 gpcd
 - Manage and Reduce Peak Usage
- **Implement Water/Wastewater Reuse & Recycle Programs**
- **Implement Consolidation/ Regionalization of Existing Small Water Systems**
- **Implement Collaborative Water Education Program**
Rhode Island Water Resources Board
Priorities

- **Address Interstate Transfer of Water**

- Examples:

- **Bristol County Water Authority (MA)**
- **Pawtucket Water Supply Board (MA)**
- **Eleanor Slater Hospital: Wallum Lake (MA)**
- **Westerly Water Department (CT)**

- **Global Climate Change**
Rhode Island Water Resources Board
Next Steps ... ?

- **Change the Way We Manage Water**
- **Can't Assume Water will be Available**
- **Treat Water as the Priority Issue for the State**
- **Address/Modify Residential Use Patterns**
- **Support Land Use Planning Changes**
- **Institute Reuse & Recycling**
- **Implement Statewide Water Awareness Programs**
- **Implement RIWRB Priorities**
-